NORTH COAST CORRIDOR
PUBLIC WORKS PLAN/TRANSPORTATION AND
RESOURCE ENHANCEMENT PROGRAM

UPDATED DRAFT MARCH 2013

Appendix A

Safe Access to Transit and Coastal Resources

Pedestrian and Bicycle Mobility Improvements in the North Coast Corridor

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1.0 THE NORTH COAST CORRIDOR VISION

The Interstate 5 (I-5) North Coast Corridor (NCC) Public Works Plan / Transportation and Resource Enhancement Program (PWP/TREP) provides the California Department of Transportation (Caltrans) and the San Diego Association of Governments (SANDAG) with a ground-breaking programmatic approach for implementing the region's multimodal transportation and resource enhancement vision for the 27-mile coastal corridor between the six cities comprising the NCC: San Diego, Del Mar, Solana Beach, Encinitas, Carlsbad, and Oceanside. The vision includes a series of highway, rail, transit, bicycle, pedestrian, and community and environmental enhancement projects to improve and maintain mobility and coastal resources in the NCC through 2030. The PWP/TREP's comprehensive planning, analytical, and implementation mechanism addresses multimodal improvements throughout the entire corridor as one system and links coastal resource and environmental improvements to the transportation projects. This balanced multimodal approach to project development responds to existing infrastructure deficiencies, growing population and travel demand, and access needs to coastal resources and recreational facilities (beaches, lagoons, open spaces), transit, activity centers, and communities.

This report addresses the pedestrian and bicycle component of the corridor's multimodal vision. Consistent with state Senate Bill (SB) 468, this report:

- Identifies the existing and planned pedestrian and bicycle networks in the NCC.
- Presents the pedestrian and bicycle improvements within the I-5 highway and Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail rights-of-way that are proposed to be implemented as part of the I-5 highway and LOSSAN rail projects in the PWP/TREP.
- Looks outside the I-5 highway and LOSSAN rail rights-of-way to identify any additional potential opportunities to improve pedestrian access to regional LOSSAN rail transit stations and coastal resources within a ¾-mile walking distance of these stations that could be permitted independently of the PWP/TREP.

This report is also intended to support SANDAG's broader safe routes to transit analysis and requirements pursuant to SB468 by documenting improvements in the safety and connectivity of the adopted regional bicycle plan in the I-5 highway and LOSSAN rail rights-of-way. The projects and findings in this report are incorporated into the PWP/TREP to be implemented concurrently with the I-5 highway and LOSSAN rail projects. Caltrans will take responsibility for implementing PWP/TREP projects within and parallel to the I-5 highway right-of-way. SANDAG will be responsible for implementing specific projects within the LOSSAN rail right-of-way and will be able to use the focused analysis in this report to support its broader, regional efforts to improve pedestrian and bicycle mobility.

2.0 EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES IN THE NCC

Bicycle and pedestrian facilities and routes are critical elements of the multimodal vision and transportation network in the NCC. Local jurisdictions in the corridor have identified pedestrian, bicycle, and trail networks in various community plans, and SANDAG recently adopted a Regional Bicycle Master Plan that defines a bicycle network in the NCC. In addition, Caltrans, in collaboration with the NCC cities, has established the I-5 North Coast Bike Trail plan, and SANDAG, in collaboration with the cities, has established an alignment for the Coastal Rail Trail in the NCC. Within the NCC, elements of these

pedestrian and bicycle networks have been implemented and provide access to the coast and upland areas. However, gaps and barriers exist in these networks, which limit access and circulation and inhibit many local and longer-distance pedestrian and bicycle trips that might otherwise occur. The multimodal transportation vision for the corridor includes upgrading and addressing many of these bicycle and pedestrian barriers, closing gaps in regional and local bicycle and pedestrian networks, and enhancing local trails to provide improved accessibility to coastal resources and recreational facilities (beaches, lagoons, open spaces), transit stations and stops, and local activity centers. The PWP/TREP plans significant pedestrian and bicycle infrastructure enhancements to achieve this vision.

Figures 1A through **6B** display the bicycle networks and pedestrian access in the NCC to show the non-motorized access routes to transit and coastal resources in the corridor. The maps also show, in green, all bicycle and pedestrian projects that are planned in the I-5 highway and LOSSAN rail rights-of-way as part of the NCC program. The following six city-focused maps ("A" maps) cover the entire NCC and include all existing networks and planned improvements, while the six station area maps ("B" maps) home in on a ¾-mile walking radius from each LOSSAN rail station:

- Figure 1A: North San Diego
- Figure 1B: Sorrento Valley Station Area
- Figure 2A: North San Diego, Del Mar, Solana Beach, and South Encinitas
- Figure 2B: Solana Beach Station Area
- Figure 3A: Encinitas
- Figure 3B: Encinitas Station Area
- Figure 4A: North Encinitas and South Carlsbad
- Figure 4B: Carlsbad Poinsettia Station Area
- Figure 5A: North Carlsbad and South Oceanside
- Figure 5B: Carlsbad Village Station Area
- Figure 6A: Oceanside
- Figure 6B: Oceanside Station Area

2.1 PLANNED IMPROVEMENTS ADJACENT TO THE I-5 HIGHWAY CORRIDOR

The proposed highway improvements will expand the existing I-5 highway to provide two managed lanes in each direction between Oceanside and northern San Diego, with Direct Access Ramps (DARs) at key locations. Carpools and bus transit will use the new managed lane facility for free, and single-occupant vehicles will be allowed access for a fee that will support transit operations. Variable pricing based on congestion levels and other Intelligent Transportation Systems (ITS) elements will improve the ability to manage congestion. New auxiliary lanes are also proposed along segments of I-5 to improve the efficiency and safety of the highway facility.

2.1.1 I-5 Highway Local-Road Crossing Projects

To accommodate the managed lanes and new auxiliary lanes, local interchange ramps and lanes will undergo modifications, most highway overcrossings will be replaced, and most undercrossings will be widened. These projects will incorporate improvements to bicycle and pedestrian facilities to create or enhance connections to bicycle paths, sidewalks, and trail networks. Highway bridge improvements across lagoons will integrate similar improvements to non-motorized transportation networks.

Local roads cross I-5 at 32 locations within the NCC, and one new crossing is planned. The I-5 highway improvements will result in the following:

- 20 replacement overcrossings
- 11 widened undercrossings
- 1 new overcrossing (Gilman Drive)
- 1 unmodified undercrossing (Carmel Mountain Road)

Table 1 lists all of these existing and proposed crossings, with specific information on how each bicycle and pedestrian facility will be upgraded. **Figures 1A-6B** mark these planned crossing improvements with light green callout boxes.

In short, pedestrian infrastructure improvements are planned for 20 overcrossings, 8 undercrossings, and the new Gilman Drive overcrossing; 4 undercrossings will maintain existing pedestrian facilities. Additionally, bicycle infrastructure improvements are planned for 9 overcrossings, 6 undercrossings, and the new Gilman Drive overcrossing; 17 will maintain existing bicycle facilities. Taken together, these crossing improvements will significantly improve east-west non-motorized travel across the freeway to access NCC transit stations and coastal resources.

Two of these crossing projects (Gilman Drive and Genesee Avenue) are being permitted separately from the PWP/TREP (see Section 2.3). However, to provide a complete picture of the corridor vision and its ongoing implementation, these projects are included in **Table 1** and **Figures 1A-6B**. Additionally, the overcrossing replacement at Voigt Drive will realign the Voigt Drive roadway between the I-5 highway and Genesee Avenue to accommodate the new bicycle and pedestrian facilities.

2.1.2 Community Enhancements

Beyond the I-5 highway crossings, a package of community enhancement projects is included in the PWP/TREP that will further improve access to coastal resources, recreational facilities, transit stations, and corridor activity centers. Caltrans' *I-5 North Coast Community Enhancement Plan* (2008) and the subsequent *I-5 North Coast Corridor Supplemental Draft EIR/EIS* (2012) identified pedestrian, bicycle, and other community improvements (e.g., trails, parks, and parking) adjacent to the I-5 right-of-way that will be implemented as part of the highway project. Some of these designated community enhancements are located at the I-5 highway crossings discussed previously, while others are parallel to I-5 or outside the highway right-of-way.

Table 2 lists these community enhancement projects by city, describes their scope of improvements, and identifies the highway project associated with each. These projects are also identified by their assigned project numbers in **Figures 1A-6B**.

In summary, 32 pedestrian, bicycle, and trail community enhancement projects are planned (including the segments of the North Coast Bike Trail in the cities of San Diego, Solana Beach, Encinitas, and Carlsbad). Of these, 23 will enhance pedestrian sidewalks, 14 will enhance bicycle facilities, and 13 will enhance trail facilities.[1]

2.1.3 I-5 North Coast Bike Trail

One of the most significant community enhancements included in the PWP/TREP is a new bicycle and pedestrian facility of both corridor and regional significance: the I-5 North Coast Bike Trail. This

[1] The total exceeds 30 because some projects include a combination of pedestrian, bicycle, and trail enhancements.

enhancement will be a new regional bicycle facility generally parallel to I-5 that will provide north-south bicycle commuting options in the corridor. The facility will be divided into separate projects by jurisdiction, with each segment assigned its own community enhancement project number as shown in **Table 2.**

The alignment of the I-5 North Coast Bike Trail was developed in 2012 through collaboration between Caltrans and the corridor cities. It contains a mix of Class I, Class II, and Class III facilities, which (in some parts of the corridor) will overlap the Coastal Rail Trail (see Section 2.2). Caltrans has agreed to implement all segments within the I-5 highway right-of-way, while the cities will be responsible for implementing segments outside the I-5 highway right-of-way. The planned alignment is shown in **Figures 1A-6B.**

2.1.4 San Luis Rey River Trail

The San Luis Rey River Trail is a Class I facility in Oceanside on the south bank of the San Luis Rey River, whose watershed San Diego County has proposed to designate as a 1,700-acre regional park. As shown in **Figures 6A-6B,** the trail's alignment lies just north of, and roughly parallel to, SR76. At I-5, the facility consists of a 10-foot paved trail in a tunnel undercrossing.

Just as local-road crossings will be rebuilt during highway construction, the San Luis Rey River Trail crossing will also be improved, with the paved trail widened to 12 feet within the tunnel undercrossing. This improvement will provide bicyclists and pedestrians with a wider and safer crossing of I-5 and greater access to the recreational area at the river.

2.2 PLANNED IMPROVEMENTS ADJACENT TO THE LOSSAN RAIL CORRIDOR

The *LOSSAN Final Program EIR/EIS* (2007) includes programmatic-level plans for rail improvement projects in the NCC. The *San Diego – LOSSAN Corridor Project Prioritization Analysis* (2009) prioritized these rail projects to optimize phased improvements. The phasing has been further refined in the SANDAG *2050 Regional Transportation Plan* (2011), which identifies LOSSAN rail corridor projects in the NCC across four decades: the immediate term (through 2020), short term (2020-2030), mid term (2030-2040), and long term (2040-2050). These planned improvements in the LOSSAN rail corridor will consist of double tracking, which will allow more trains to run in the corridor each day and eliminate the delays caused by trains having to wait to pass each other, as well as other track enhancements such as crossovers, station "stub" tracks, station pass-through tracks, and rail bridge replacements—all of which will increase operating capacity. In addition, NCC LOSSAN rail stations will benefit from parking expansions and other improvements that will improve travel time and access and will allow for more frequent and reliable service.

These LOSSAN track projects will allow many other peripheral improvements to the corridor, including many improvements to bicycle and pedestrian facilities. SANDAG's process for planning, designing, and constructing projects in the LOSSAN rail corridor includes close coordination with the local transit agencies (North County Transit District and San Diego Metropolitan Transit System), local jurisdictions, and many other stakeholders. As a general rule, existing bicycle and pedestrian facilities at new or upgraded crossings of the LOSSAN rail corridor will be maintained as part of the rail improvement project. However, implementation of new bicycle and pedestrian improvements concurrent with a particular rail project will be determined as each rail project advances.

2.2.1 LOSSAN Crossing Projects

In addition to enhancing vehicle crossings (both at-grade and grade-separated) and maintaining all existing crossings in the LOSSAN project area, the planned improvements also include new pedestrian

and/or bicycle crossings at several locations. **Table 3** lists all of these existing and planned LOSSAN crossing facilities.

At the Carlsbad Poinsettia Station, a new pedestrian overcrossing is planned that will allow for safer pedestrian movement within the station and provide an improved pedestrian access route to the coast. In Del Mar, a new pedestrian crossing is planned for the Coast to Crest Trail—a 55-mile east-west trail facility that is a major feature of the San Dieguito River Park. The majority of the trail system is built, but it lacks a legal way to cross the LOSSAN rail corridor to reach the coast. As part of the PWP/TREP program of improvements, this essential link will be completed, providing improved coastal access from the Coast to Crest Trail.

In Encinitas, four new pedestrian undercrossings of the LOSSAN rail corridor are planned in the near term. As noted in Section 2.3, three of these crossings (at Montgomery Avenue, Santa Fe Drive, and El Portal Street) are being permitted outside the PWP/TREP, with the Santa Fe Drive crossing nearing completion and the Montgomery Avenue crossing under construction. The fourth planned crossing (at Hillcrest Drive) is expected to be permitted via the PWP/TREP.

2.2.2 Coastal Rail Trail

The Coastal Rail Trail is a dedicated bicycle facility in the region's coastal corridor, with most segments in or adjacent to the LOSSAN rail right-of-way. It is partially completed within San Diego County, with varying levels of progress in each NCC city. Once fully completed, the Coastal Rail Trail will provide a continuous north-south bicycle route—mostly comprising Class I facilities—through the NCC with direct access to coastal resources and recreational facilities. Caltrans and SANDAG have identified the following segments of the Coastal Rail Trail within the LOSSAN rail right-of-way as projects to be included in the NCC program of improvements:

- **La Costa Avenue to Chesterfield Drive (Encinitas)** will construct approximately 4.6 miles of dedicated bicycle facility in the LOSSAN right-of way. Portions of this segment overlap with three planned LOSSAN double-track projects (CP Ponto to CP Moonlight, CP Moonlight to CP Swami, and CP Cardiff to CP Craven).
- **Tamarack Avenue to Poinsettia Station (Carlsbad)** will construct approximately 2.8 miles of dedicated bicycle facility in the LOSSAN right-of-way. However, as shown in **Figure 4A,** a small portion of this segment lies outside the rail right-of-way, and therefore its implementation will require further coordination with the city of Carlsbad.

Except for minor deviations, the I-5 North Coast Bike Trail and the Coastal Rail Trail mostly follow the same alignment in the cities of Oceanside and Carlsbad.

2.3 NCC Improvements Being Permitted Outside the PWP/TREP

Bicycle and pedestrian projects in the NCC that are being permitted outside the PWP/TREP are described in this document to provide a comprehensive vision of the pedestrian and bicycle improvements in the corridor.

The following bicycle and pedestrian projects adjacent to the I-5 highway corridor are being permitted separately from the PWP/TREP:

- **Genesee Avenue Overcrossing Replacement (San Diego)** will consist of two parts:
  - **Genesee Avenue Overcrossing** will provide new 8-foot sidewalks and improve bicycle facilities from Class III to Class II lanes.
  - **Sorrento Valley to Voigt Class I Bike Trail** will construct a new Class I trail from Sorrento Valley Road to Voigt Drive at University of California, San Diego (UCSD), eliminating the need for bicyclists to ride on the I-5 highway shoulder.
- **Gilman Drive Overcrossing (San Diego)** will construct an entirely new bridge over I-5 with 8-foot sidewalks and Class II bicycle lanes.

The following bicycle and pedestrian projects adjacent to the LOSSAN rail corridor are being permitted separately from the PWP/TREP:

- **Montgomery Avenue Pedestrian Undercrossing (Encinitas)**
- **Santa Fe Drive Pedestrian Undercrossing (Encinitas)**
- **El Portal Street Pedestrian Undercrossing (Encinitas)**

3.0 TRANSIT AND COASTAL ACCESS BENEFITS OF PLANNED IMPROVEMENTS

The planned bicycle and pedestrian improvements in the NCC will bring benefits to active transportation throughout the corridor, increasing the accessibility not just of coastal resources but also of the adjacent LOSSAN rail corridor. **Figures 1B-6B** identify ¾-mile catchment areas around each LOSSAN rail station, which represent an average person's maximum walking distance to or from transit.[2] Because of the proximity of the LOSSAN rail corridor to the coast, many of these catchment areas also contain state beaches and other coastal resources. The planned PWP/TREP improvements will have the greatest impact on the accessibility of transit and coastal resources within this ¾-mile radius. The benefits that will be realized within each station area are examined in the following sections.

3.1.1 Sorrento Valley Station Area (Figure 1B)

The improvements near Sorrento Valley Station will broaden access to LOSSAN rail services by creating stronger links between the station and several major employment and residential communities of northern San Diego. The ¾-mile station area includes parts of the communities of Sorrento Valley, Torrey Hills, and University City, and also contains the elevated profile of the merging I-5 and I-805 highways. The following three significant projects will provide bicyclists and pedestrians with greater access to the rail corridor, allow for safer connections between UCSD and LOSSAN rail services, and increase access to recreational opportunities:

- **Los Peñasquitos Creek Trail Connection (SD#1)** will construct a trail connection under the merging I-5 and I-805 highway structures in the Caltrans right-of-way from Los Peñasquitos Creek to Sorrento Valley Road. This project will create better linkages among the Sorrento Valley Station, the residential

[2] This assumes that pedestrians are willing to walk about 20 minutes, or approximately ¾ of a mile, to a high-quality rapid transit option such as the COASTER. While the Federal Transit Administration (FTA) has established a "one-half mile de facto catchment area for pedestrians around a transit stations," the FTA also supports investments in and "makes eligible for funding pedestrian improvements beyond the one-half mile catchment area if the improvement is within the distance that people could be expected to safely and conveniently walk to use the particular stop or station" ("Final Policy Statement on the Eligibility of Pedestrian and Bicycle Improvements Under Federal Transit Law," *Federal Register* Vol. 76, No. 161, August 19, 2011).

and commercial developments near Sorrento Valley Road, and the existing recreational trails at Los Peñasquitos Creek.

- **Sorrento Valley to Voigt Class I Bike Trail** will construct a new Class I facility from Sorrento Valley Road to Voigt Drive at UCSD, eliminating the need for bicyclists to make the steep journey while riding on the I-5 highway shoulder. This project will enhance access to the Sorrento Valley Station from the dense housing and employment areas in University City and will provide access to the adjacent trail project SD#1. It will also serve as the southern end of the I-5 North Coast Bike Trail, whose planned alignment will continue north along Sorrento Valley Road. As noted in Section 2.3, this project is being permitted separately from the PWP/TREP.
- **I-5 North Coast Bike Trail in the City of San Diego (SD#5)** will share the Sorrento Valley to Voigt Class I Bike Trail and is then planned to continue north along Sorrento Valley Road. As Sorrento Valley Road is outside the I-5 highway right-of-way, this segment will not be built by Caltrans during highway construction and will instead require future planning coordination with the City of San Diego.

3.1.2 Solana Beach Station Area (Figure 2B)

There is one planned bicycle or pedestrian improvement planned for the ¾-mile area surrounding the Solana Beach Station:

- **I-5 North Coast Bike Trail in the City of Solana Beach (SB#4)** is planned to share Stevens Avenue and San Rodolfo Drive within the station area. The improvement will connect to the Class II bicycle lanes on Lomas Santa Fe Drive that provide access to Solana Beach Station. As this portion of the alignment is outside the highway right-of-way, it will not be built by Caltrans during highway construction, and will instead require future planning coordination with the City of Solana Beach.

3.1.3 Encinitas Station Area (Figure 3B)

With the I-5 highway and LOSSAN rail corridors in close proximity in Encinitas, the following bicycle and pedestrian improvements in the Encinitas Station area are planned:

- **Trail Connecting Santa Fe Drive to Requeza Street with Wetland Revegetation (EN#4)** will connect Santa Fe Drive to Requeza Street and include improved drainage and wetland vegetation restoration. In conjunction with the Santa Fe Drive Undercrossing and community enhancement project EN#3 (Hall Property Park Trail Connecting to Santa Fe Drive, shown in **Figure 3A**), the project will provide bicycle and pedestrian access to the new Hall Property Park. The I-5 North Coast Bike Trail also will share the facility.
- **Encinitas Boulevard Bicycle/Pedestrian Enhancements (EN#5A)** will provide new 10-foot sidewalks on both sides of Encinitas Boulevard and maintain the existing Class II bicycle lanes. This will enhance pedestrian access to Encinitas Station and coastal resources.
- **Trail Connecting Requeza Street to Encinitas Boulevard (EN#5B)** will provide a new trail along the east side of I-5 connecting Requeza Street with Encinitas Boulevard. The I-5 North Coast Bike Trail will share the facility. It will connect to project EN#4 to the south, as well as to the existing Class II regional bicycle route along Encinitas Boulevard.
- **Union Street Pedestrian Overpass (EN#6A)** will construct a new pedestrian and bicycle crossing over I-5, along with a new park on the west side of the bridge in a parcel owned by the City of Encinitas. The I-5 North Coast Bike Trail will share the facility. At its western end, this project will connect to project EN#6B, which will then connect to an existing local trail leading to Encinitas

Boulevard; this will provide a new bicycle and pedestrian route across the highway to Encinitas Station.

- **Cottonwood Creek Park to Union Street Trail Connection with Wetland Revegetation (EN#6B)** will connect Cottonwood Creek Park to Union Street on the west side of I-5. This will connect project EN#6A to the City of Encinitas recreational trail leading to Encinitas Boulevard, creating a new bicycle and pedestrian route across the highway to Encinitas Station.
- **I-5 North Coast Bike Trail in the City of Encinitas (EN#7)** will include dedicated and shared bicycle facilities in the ¾-mile study area. South of Encinitas Boulevard, the facility will be within the I-5 highway right-of-way and overlap with the community enhancement projects EN#4 and EN#5B. North of Encinitas Boulevard, the trail is planned to share Saxony Road and Union Street. As this shared portion of the alignment is outside the I-5 highway right-of-way, it will not be built by Caltrans during highway construction, and will instead require future planning coordination with the City of Encinitas.
- **Requeza Street Overcrossing** will provide widened 10-foot sidewalks on both sides of the street, providing safer pedestrian access across the highway. The existing Class III bicycle route will be maintained.
- **Coastal Rail Trail (La Costa Avenue to Chesterfield Drive)** will construct approximately 7.4 miles of new Class I bicycle facility within or adjacent to the LOSSAN rail right-of way, to include the 1.5-mile segment within the study area surrounding Encinitas Station. This project will provide greater access to both LOSSAN rail services and nearby coastal resources (including Moonlight State Beach). It will also eliminate a major gap in the regional Coastal Rail Trail.
- **Santa Fe Drive Pedestrian Undercrossing** will provide a new grade-separated access route for pedestrians and bicyclists to cross the rail corridor and access coastal resources, including nearby San Elijo State Beach. It will link the Class II bicycle lanes on Santa Fe Drive with the Coast Highway local bicycle route, the California Coastal Trail, and the planned Coastal Rail Trail segment from La Costa Avenue to Chesterfield Drive. As noted in Section 2.3, this project is being permitted separately from the PWP/TREP.
- **El Portal Street Pedestrian Undercrossing** will provide a new grade-separated access route across the rail corridor similar to the Santa Fe Drive undercrossing. It will provide connections to the Coast Highway local bicycle route, the California Coastal Trail, and the planned Coastal Rail Trail segment from La Costa Avenue to Chesterfield Drive. As noted in Section 2.3, this project is being permitted separately from the PWP/TREP.

3.1.4 Carlsbad Poinsettia Station Area (Figure 4B)

The bicycle and pedestrian improvements planned for the ¾-mile vicinity around Poinsettia Station consist of the following one highway crossing, one rail crossing, and two regional bicycle facilities that will share the same alignment:

- **Poinsettia Lane Overcrossing** will widen sidewalks to 12 feet and maintain Class II bicycle lanes on both sides of the roadway. This will increase access to both Poinsettia Station and South Carlsbad State Beach from the dense residential areas just east of the highway.
- **Poinsettia Station Pedestrian Overcrossing** will provide a new grade-separated crossing of the LOSSAN rail corridor adjacent to Poinsettia Station. It will replace the existing at-grade crossing and connect to the existing trail west of the tracks, providing pedestrians with an unimpeded route to South Carlsbad State Beach. This improvement will increase the safety of pedestrians as well as the reliability of LOSSAN rail services, which will no longer have to slow or stop for the at-grade crossing.

- **I-5 North Coast Bike Trail in the City of Carlsbad (CB#4)** will share the alignment of the Coastal Rail Trail within the ¾-mile study area, and will include dedicated and shared bicycle facilities. South of Carlsbad Poinsettia Station, Class II bicycle lanes are already constructed along Avenida Encinas. North of the station, a new Class I facility will be constructed within or adjacent to the LOSSAN right-of-way.
- **Coastal Rail Trail (Tamarack Avenue to Poinsettia Station)** will construct approximately 2.8 miles of new Class I bicycle facility within or adjacent to the LOSSAN rail right-of-way. This will begin near Carlsbad Poinsettia Station—at the end of the existing Class II facility on Avenida Encinas—and will continue north to Tamarack Avenue.

3.1.5 Carlsbad Village Station Area (Figure 5B)

In addition to the planned alignment of the I-5 North Coast Bike Trail near Carlsbad Village Station, three highway crossings also fall within the ¾-mile study area—all of which will receive upgraded bicycle and pedestrian facilities. The planned projects are the following:

- **Chestnut Avenue Undercrossing** will widen existing sidewalks from 5 feet to 10 feet and construct new Class II bicycle lanes on each side of the roadway. This will provide safer routes across the highway for pedestrians and bicyclists, increasing their access to Carlsbad Village Station and nearby coastal resources such as Carlsbad State Beach. It also will provide better linkages to the Class II bicycle lanes that continue along Chestnut Avenue to the east of the highway, and also along nearby Harding Street to the west of the highway.
- **Carlsbad Village Drive Undercrossing** will widen existing sidewalks to 10 feet and construct new Class II bicycle lanes on each side of the roadway. As with the Chestnut Avenue Undercrossing, this project will provide a safer way for pedestrians and bicyclists to cross the highway to access transit and coastal resources.
- **Las Flores Drive Overcrossing** will widen the existing eastbound sidewalk to 10 feet and construct a new 10-foot westbound sidewalk. The existing Class III bicycle route will be maintained, which is consistent with the city's bicycle master plan.
- **I-5 North Coast Bike Trail in the City of Carlsbad (CB#4)** will share facilities with the Coastal Rail Trail in the vicinity of Carlsbad Village Station. Part of this facility (from Oak Avenue to the southern edge of the ¾-mile study area) is already constructed as a Class I bicycle path. The remaining northern portion of the route (currently in the design phase) is planned as a Class III shared facility along State Street.

3.1.6 Oceanside Station Area (Figure 6B)

The following planned bicycle and pedestrian improvements near Oceanside Station are mostly adjacent to the highway, owing to the fact that the Coastal Rail Trail and other facilities adjacent to the LOSSAN rail corridor are already constructed or nearing completion:

- **Division Street Bicycle/Pedestrian Enhancements (OC#3)** will transform the existing 5.5-foot single sidewalk into two 17-foot sidewalks on each side of the overcrossing. It also will provide widened sidewalks on Brooks Street, located just east of the highway, providing a safer connection to Ron Ortega Recreation Park. Existing Class III bicycle facilities will be maintained.
- **Mission Avenue Bicycle/Pedestrian Enhancements (OC#4)** will widen the eastbound sidewalk to 17 feet and the westbound sidewalk to 12 feet, as well as provide Class II bicycle lanes in both directions. In addition, the project will realign the highway on- and off-ramps to allow for signalized

pedestrian crossings. This will provide safer access for bicyclists and pedestrians crossing the highway to access Oceanside Station, and connect to the existing Class II bicycle lanes that extend east on Mission Avenue.

- **Bush Street Bicycle/Pedestrian Enhancements and Community Gardens (OC#5)** will connect the existing community gardens at Civic Center Drive and Witzel Street (west of I-5) with new community garden plots on the east side of I-5. It will also install a paved trail from the east side of the overcrossing to Buena Street, new and improved lighting and landscaping features, and wider sidewalks on Buena Street and Santa Barbara Street.
- **I-5 North Coast Bike Trail in the City of Oceanside (OC#11)** will share facilities with the Coastal Rail Trail in the vicinity of Oceanside Station. East of the station, a Class I facility is under construction. West of the station, both bicycle routes will share city streets as Class III facilities. This will improve connectivity for bicyclists and pedestrians to and from Oceanside Station, which is served by LOSSAN rail services as well as the east-west SPRINTER light-rail transit to Escondido.
- **Fourth Street/Bush Street Overcrossing** will connect the existing community gardens west of the highway to the residential and commercial areas east of the highway, installing new 17-foot (eastbound) and 10-foot (westbound) sidewalks. Class III bicycle facilities will be maintained.
- **Neptune Way Overcrossing** will widen existing sidewalks from 5 feet to 10 feet and maintain a Class III bicycle facility. Neptune Way is the only access route for the residential development east of the highway to reach the rest of Oceanside, including transit and coastal resources. This project will provide improved pedestrian accessibility for this isolated residential community.

4.0 ANALYSIS OF ADDITIONAL OPPORTUNITIES FOR PEDESTRIAN AND BICYCLE IMPROVEMENTS

In addition to the I-5 North Coast Bike Trail, Coastal Rail Trail, and pedestrian and bicycle enhancements within the highway and rail rights-of-way included in the PWP/TREP, this study investigated additional opportunities for improvements to the regional bicycle network (based on SANDAG's 2010 *Regional Bicycle Plan)*, local bicycle networks (based on the cities' bicycle master plans), and in the local pedestrian networks (based on the San Diego Regional Sidewalk Network GIS database of existing sidewalks and local pedestrian plans) across the I-5 highway or LOSSAN rail corridor or within a ¾-mile radius of LOSSAN rail stations.[3]

4.1 IMPROVEMENT OPPORTUNITIES ADJACENT TO THE I-5 CORRIDOR

Pedestrian and bicycle facilities in the I-5 highway corridor will undergo major improvements with very few crossings left unmodified. The few remaining improvement opportunities are analyzed below.

4.1.1 Pedestrian Opportunities

As discussed in Section 2.1 and shown in **Table 1,** local roads cross I-5 at 32 locations in the NCC, and one new crossing is planned. The planned highway improvements will incorporate sidewalk enhancements at most of the overcrossing and undercrossing locations. Of the local-road crossing locations that do not include sidewalk enhancements:

[3] *Generating a Sidewalk Network for San Diego County: Project Documentation,* June 2011, SANDAG and Urban Design for Health, Inc.

- **Carmel Mountain Road Undercrossing (San Diego)** includes 5-foot sidewalks on both sides of the undercrossing. Therefore, it does not present a barrier to pedestrians.
- **Lomas Santa Fe Drive Undercrossing (San Diego)** has 5.5-foot sidewalks on both sides. Therefore, it does not present a barrier to pedestrians.
- **Carmel Valley Road/SR 56 Undercrossing (San Diego)** has 5-foot sidewalks on both sides. Therefore, it does not present a barrier to pedestrians.
- **Cannon Road Undercrossing (Carlsbad)** has 6-foot sidewalks on both sides. Therefore, it does not present a barrier to pedestrians.

No additional pedestrian enhancement project opportunities were identified for I-5 at existing crossings.

4.1.2 Bicycle Opportunities

The PWP/TREP improvements will upgrade Class III bicycle routes to Class II facilities at 15 crossing locations at I-5, will add a Class II facility at the new Gilman Drive overcrossing, and will maintain existing facility classes at the remaining 17 local-road crossings as well as the San Luis Rey River Trail (two Class I, seven Class II and nine Class III). With the exception of the two Class I facilities at Lomas Santa Fe Drive and the San Luis Rey River Trail, the existing and planned bicycle networks in the NCC do not include any additional Class I crossings of the highway. Therefore, additional upgrades of Class II facilities to Class I at I-5 crossings are not proposed since there would be no connecting Class I networks.

Of the nine highway crossings where Class III facilities will be maintained, an analysis was conducted to determine whether there are opportunities to upgrade to Class II facilities. The analysis identified whether the crossings are on the proposed Regional Bicycle Master Plan and whether any were identified as barriers on the regional Bicycle Barriers Model.[4] Further analysis examined whether each crossing is on the existing local bicycle network, whether there is an existing Class II network to connect with, and whether the local jurisdictions' bicycle master plans propose an upgrade or a new Class II facility. The analysis also considered that all PWP/TREP overcrossing and undercrossing projects will provide Class III facilities at a minimum, and therefore will address the barriers identified in the Regional Barrier Model. As a result, the barriers identified in the Regional Barrier Model are not considered to be determining factors in identifying additional opportunities for bicycle projects in the PWP/TREP. Finally, the analysis determined that upgrades to Class II crossings would have little value if there are no existing or planned Class II networks to connect with. The best opportunities for additional bicycle enhancements are those in which an upgrade from a Class III to Class II bicycle crossing would connect with an existing or planned Class II facility. The analysis found that the PWP/TREP has already identified all opportunities for bicycle network improvements and there are no additional opportunities. **Table 4** summarizes the results of this analysis for the nine crossings.

The Carmel Valley Road/SR 56 crossing currently contains Class III facilities and is designated as a regional bicycle route. It facilitates the connection between Carmel Valley Road to the west of I-5 (which contains both Class II and Class III facilities) and a Class I bicycle facility that begins near El Camino Real to the east of I-5. This crossing is not considered a candidate for upgrade to Class II facilities because it will be superseded by community enhancement project SD#2A (Carmel Valley Bicycle/Pedestrian Enhanced Trail Connection). This project will provide a Class I undercrossing just south of Carmel Valley Road, which will allow bicyclists to cross the highway without having to ride on either Carmel Valley Road or El Camino Real.

[4] San Diego Regional Bicycle Plan, Appendix A – Existing Conditions Report, Figure 6-4. "The bicycle barrier submodel reflects indications of 'problem areas' such as relatively high crash locations, roadways with high vehicular traffic volumes and speeds, freeway on/off ramps, and steep slopes."

At Carmel Mountain Road, where there is no project planned, there is a Class II bicycle lane on both sides of the undercrossing. The undercrossing is not on the regional bicycle network. The location, however, was identified as barrier on the Bicycle Barriers Model. Further examination of this site may reveal the reason this is identified as a barrier and identify possible transportation management solutions short of an infrastructure project (such as change in signage, traffic signal or intersection striping) that could eliminate or alleviate this barrier.

4.2 Improvement Opportunities Adjacent to the LOSSAN Rail Corridor

Many pedestrian and bicycle routes adjacent to the LOSSAN rail corridor already contain facilities such as paved sidewalks and Class II bicycle lanes. The few remaining improvement opportunities are analyzed in **Table 3,** but as they are still dependent upon ongoing project scope development, the opportunities identified remain tentative.

Potential pedestrian opportunities include sidewalk enhancements at the following locations:

- **Leucadia Boulevard At-Grade Crossing (Encinitas)** has a low-quality sidewalk on the north side and no sidewalk on the south side, making it a potential opportunity for sidewalk improvement. However, this project is being considered for grade separation, which would render improvements unnecessary.
- **La Costa Avenue Overcrossing (Encinitas)** has a sidewalk only on the south side. This is a potential opportunity for sidewalk improvement.
- **Carlsbad Boulevard (Carlsbad)** has a sidewalk only on the south side. This is a potential opportunity for sidewalk improvement.

Additionally, the following are two potential opportunities for bicycle improvements:

- **Chesterfield Drive At-Grade Crossing (Encinitas)** contains no bicycle lanes, but connects to Class II lanes on Coast Highway that run parallel to the tracks. This is a potential opportunity for bicycle facility improvement.
- **Leucadia Boulevard At-Grade Crossing (Encinitas)** contains a narrow Class II bicycle lane on the north side and no bicycle lane on the south side. It connects to existing Class II lanes on Leucadia Boulevard and Coast Highway, making this crossing a potential opportunity for improvement. However, this project is being considered for grade separation, which would render improvements unnecessary.

Finally, two LOSSAN crossings (Del Mar Scenic Parkway and North Torrey Pines Road) contain potential opportunities for pedestrian or bicycle improvements, but are dependent upon the selection of a project alternative for the Del Mar Tunnel. If the tunnel is approved for construction as planned, these improvements will be unnecessary.

4.3 Other Access Improvement Opportunities Near Transit Stations

The LOSSAN rail corridor is the backbone of the public transit network in the NCC. The success of the rail line is directly related to its convenience and ease of use, and difficulty accessing rail stations serves as a deterrent to potential riders. In addition to access by car or local bus, many people travel between the rail stations and nearby homes, schools or activity centers by bicycle or on foot. Safe, direct, and convenient bicycle and pedestrian infrastructure (such as bicycle lanes, sidewalks, pathways, and roadway crossings) within the vicinity of the rail stations encourages access to the LOSSAN rail corridor.

As noted in Section 3, **Figures 1B-6B** identify ¾-mile catchment areas around each LOSSAN rail station, which represent an average person's maximum walking distance to or from transit. The figures also show the existing sidewalks and other pedestrian facilities within these catchment areas, which were derived from local pedestrian master plans (when available) and the *San Diego Regional Sidewalk Network*. The figures indicate the extent of localized pedestrian access to rail stations as well as adjacent coastal resources; as shown, some NCC communities have more extensive pedestrian networks than others.

The ¾-mile catchment areas include substantial areas outside the I-5 highway and LOSSAN rail rights-of-way. While there may be opportunities to improve pedestrian access in these areas, the implementation of any improvements outside the highway or rail rights-of-way would be the responsibility of local jurisdictions. **Figures 1b-6b** provide a resource for assessing opportunities to improve access to rail stations within the ¾-mile radius.

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TABLE 1: PLANNED PEDESTRIAN AND BICYCLE IMPROVEMENTS AT INTERSTATE 5 LOCAL-ROAD CROSSINGS

I-5 Overcrossing Bridges	Replace Or New	Permitting Document	Existing Sidewalk	Proposed Sidewalk*	Pedestrian Improvements	Existing Bicycle Facility	Proposed Bicycle Facility	Bicycle Improvements
Voigt Dr OC & Realignment	Replace	PWP	Yes	15' sidewalks	• Widen both sidewalks to 15'	Class III/Shared Use	Class II	New Class II bike lanes
Del Mar Heights Rd OC	Replace	PWP	Yes = 5'	12' sidewalks	• Widen both sidewalks to 12'	Class II	Class II	Maintain existing
Birmingham Dr OC	Replace	PWP	Yes (WB) = 5'	12' sidewalks	• Widen WB sidewalk to 12' • New 12' EB sidewalk	Class III/Shared Use	Class III/Shared Use	Maintain existing
Mackinnon Ave OC**	Replace	PWP	Yes = 5.5'	17' sidewalks	• Widen both sidewalks to 17'	Class III/Shared Use	Class II	New Class II bike lanes
Requeza St OC**	Replace	PWP	Yes – EB = 6'. WB = 2'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Leucadia Blvd OC	Replace	PWP	Yes = 5'	12' sidewalks	• Widen both sidewalks to 12'	Class III/Shared Use	Class II	New Class II bike lanes
La Costa Ave OC**	Replace	PWP	Yes = 5'	12' sidewalks	• Widen both sidewalks to 12'	Class II	Class II	Maintain existing
Poinsettia Lane OC	Replace	PWP	Yes = 6'	12' sidewalks	• Widen both sidewalks to 12'	Class II	Class II	Maintain existing
Palomar Airport Rd OC	Replace	PWP	Yes – WB = 6' + EB = 5-6'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class II	New Class II bike lanes
Chinquapin Ave OC	Replace	PWP	Yes – WB = 6'	10' sidewalks	• Widen WB sidewalk to 10' • New EB sidewalk 10'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Tamarack Ave OC	Replace	PWP	Yes = 6'	12' sidewalks	• Widen both sidewalks to 12'	Class III/Shared Use	Class II	New Class II bike lanes
Las Flores Dr OC	Replace	PWP	Yes – EB = 6'	10' sidewalks	• New WB sidewalk 10' • Widen EB sidewalk to 10'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Jefferson St OC	Replace	PWP	Yes – WB = 6'	10' sidewalks	• Widen WB sidewalk to 10' • New EB sidewalk 10'	Class III/Shared Use	Class II	New Class II bike lanes
Cassidy St OC	Replace	PWP	Yes – EB = 5.5'	10' sidewalks	• New WB sidewalk 10' • Widen EB sidewalks to 10'	Class III/Shared Use	Class III/Shared Use	Maintain existing
California St OC**	Replace	PWP	Yes – EB = 5'	17' sidewalks	• New WB sidewalk 17' • Widen EB sidewalks to 17'	Class III/Shared Use	Class II	New Class II bike lanes
Brooks/Division St OC**	Replace	PWP	Yes – WB = 5.5'	17' sidewalks	• Widen WB sidewalks to 17' • New EB sidewalk 17'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Mission Ave OC**	Replace	PWP	Yes – WB = 4.6', EB = 5'	17'S/12'N sidewalks	• Widen WB sidewalk to 12' • Widen EB sidewalk 17'	Class III/Shared Use	Class II	New Class II bike lanes
Fourth St / Bush St OC**	Replace	PWP	Yes = 5'	17'S/10'N sidewalks	• Widen WB sidewalk to 10' • Widen EB sidewalk 17'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Neptune Way / 8th St OC	Replace	PWP	Yes = 5'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class III/Shared Use	Maintain existing
Gilman OC	New bridge	Outside PWP	N/A	8' sidewalks	• New 8' sidewalk	N/A	Class II	New Class II bike lanes
Genesee OC ***	Replace	Outside PWP	No	8' sidewalks	• New 8' sidewalks	Class III/Shared Use	Class II	New Class II bike lanes

*All sidewalk widths include 2' for low-profile barriers at curb.
** Project is associated with a Community Enhancement project (Table 3).
*** Project includes a Class I bicycle facility from Sorrento Valley Road to Voigt Drive, parallel with I-5.
**** Not a local road

TABLE 1: PLANNED PEDESTRIAN AND BICYCLE IMPROVEMENTS AT INTERSTATE 5 LOCAL-ROAD CROSSINGS (CONTINUED)

I-5 Undercrossing	Widening	Part of PWP / Outside of PWP	Existing Sidewalk	Proposed Sidewalk*	Pedestrian Improvements	Existing Bicycle Facility	Proposed Bicycle Facility	Bicycle Improvements
Carmel Mountain Road	No	N/A	Yes = 5'	N/A	• N/A	Class II	N/A	N/A
Carmel Valley Road /SR 56*	Yes	PWP	Yes = 5'	5' sidewalks	• Maintain existing	Class III/Shared Use	Class III/Shared Use	Maintain existing
Via De La Valle UC	Yes	PWP	Yes – WB = 5', EB = 3-4'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class II	New Class II bike lane
Lomas Santa Fe UC	Yes	PWP	Yes – WB & EB = 5.5'	5.5' sidewalks	• Maintain existing	Class I	Class I	Maintain existing
Manchester Ave UC (part of San Elijo lagoon bridge)	Yes	PWP	No	Sidewalk is part of the San Elijo Trail project	• New sidewalk is part of the San Elijo Trail project	Class III/Shared Use	Class II	New Class II bike lanes
Santa Fe Dr UC**	Yes	PWP	Barrier sep. 5' sidewalk	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class II	New Class II bike lanes
Encinitas Blvd UC**	Yes	PWP	No	10' sidewalks	• New 10' sidewalk on both sides	Class II	Class II	Maintain existing
Cannon Rd UC	Yes	PWP	Yes = 6'	6' sidewalks	• Maintain existing	Class II	Class II	Maintain existing
Chestnut Ave UC	Yes	PWP	Yes = 5'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class II	New Class II bike lanes
Carlsbad Village Dr UC	Yes	PWP	Yes = 6'	10' sidewalks	• Widen both sidewalks to 10'	Class III/Shared Use	Class II	New Class II bike lanes
Oceanside Blvd UC**	Yes	PWP	Yes – WB = 5.5', EB = 6'	10' sidewalks	• Widen both sidewalks to 10'	Class II	Class II	Maintain existing
Harbor Drive / Camp Pendleton UC**	Yes	PWP	Yes – EB = 3'	8' EB Sidewalk	• Widen eastbound sidewalk to 8'	Class III/Shared Use	Class II	New Class II bike lanes
San Luis Rey River Trail****	Yes	PWP	10' Tunnel	12' trail & maintain tunnel	• Maintain tunnel • New 12' trail	Class I	Class I	Maintain existing on new 12' trail

*All sidewalk widths include 2' for low-profile barriers at curb.
** Project is associated with a Community Enhancement project (Table 3).
*** Project includes a Class I bicycle facility from Sorrento Valley Road to Voigt Drive, parallel with I-5.
**** Not a local road

TABLE 2: PWP/TREP PEDESTRIAN, BICYCLE AND TRAIL COMMUNITY ENHANCEMENT PROJECTS

Enhancement Project	Project No.	City	TYPE OF IMPROVEMENT			Coordinated with PWP Project
			Pedestrian (Paved Sidewalk)	Bicycle (Class I, II and III)	Unpaved Trail	
Los Peñasquitos Creek Trail Connection*	SD#1	San Diego	Sidewalk connections from the existing sidewalk to the trail below at Vista Sorrento Parkway	NA	• Decomposed 8' granite pedestrian-bicycle trail under Vista Sorrento Parkway, I-805 and I-5 • Trail connections to exiting trails at Los Peñasquitos Creek and on Sorrento Valley Road	• 2 HOV from La Jolla Village Dr to I-5/I-805 • Voigt DAR
Carmel Valley Bicycle/Pedestrian Trail Connection*	SD#2A		• New 12' paved separate bicycles and pedestrian lanes (matching Carmel Valley Restoration Enhancement Project) under the I-5 freeway from existing trail along Los Peñasquitos Lagoon, east, to the existing Carmel Valley trail, leading to the ocean • Connection to Enhanced Park & Ride and Carmel Valley Road		Improved trail connections	• 2 EL from I-5/I-805 to SR 56, I-5/SR-56 Interchange • Carmel Valley Road Enhanced Park & Ride SD#2B
Old Sorrento Valley Road Bicycle/Pedestrian Enhanced Trail Connections from Carmel Valley Road (SR 56) to Carmel Mountain Road	SD#2C		NA	Class I 12' wide bicycle lane	NA	• 2 EL from I-5/805 to SR 56 • I-5/SR-56 Interchange Improvements
Bicycle/Pedestrian Trail & Bridge on West Side of I-5 at San Dieguito Lagoon	SD#3		• Part of the I-5 NC bicycle network, includes pedestrian-bicycle bridge across San Dieguito Lagoon • 12' Class I bike lane connecting Del Mar Heights Road to Via de la Valle		NA	• 2 EL from SR 56 to Manchester • San Dieguito Lagoon Bridge widening
Pedestrian Overpass Connection North of Del Mar Heights Road	SD#4		A new 12' wide pedestrian and bicycle bridge with connecting sidewalks		NA	2 EL from SR 56 to Manchester
I-5 NC Bike Trail in the City of San Diego (in I-5 ROW)	SD#5		Varying pedestrian and bicycle network (Class I, II and III) improvements along I-5 NC		NA	2 EL from SR 56 to Manchester within the city borders

* Source: I-5 North Coast Community Enhancement Plan (January, 2008) refined by Caltrans input
EL = Express Lane

TABLE 2: PWP/TREP PEDESTRIAN, BICYCLE AND TRAIL COMMUNITY ENHANCEMENT PROJECTS (CONTINUED)

Enhancement Project	Project No.	City	TYPE OF IMPROVEMENT			Coordinated with PWP Project
			Pedestrian (Paved Sidewalk)	Bicycle (Class I, II and III)	Unpaved Trail	
Streetscape Enhancements on Ida Avenue*	SB#1	Solana Beach	Concrete sidewalk on the west side of Ida Ave	NA	NA	2 EL from SR 56 to Manchester
Pedestrian Trailhead at Solana Hills Drive*	SB#2		Sidewalk along Solana Hills Drive	NA	Trail head and connection between the north end of Solana Hills Drive trails and San Elijo Lagoon Ecological Reserve	2 EL from SR 56 to Manchester
Gateway Open Space Preservation Site	SB#3		NA	NA	NA	NA
I-5 NC Bike Trail in the City of Solana Beach (in I-5 ROW)	SB#4		Varying pedestrian and bicycle network (Class I, II and III) improvements along I-5 NC		NA	2 EL from SR 56 to Manchester, within the city borders

* Source: I-5 North Coast Community Enhancement Plan (January, 2008) refined by Caltrans input
EL = Express Lane

TABLE 2: PWP/TREP PEDESTRIAN, BICYCLE AND TRAIL COMMUNITY ENHANCEMENT PROJECTS (CONTINUED)

Enhancement Project	Project No.	City	TYPE OF IMPROVEMENT			Coordinated with PWP Project
			Pedestrian (Paved Sidewalk)	Bicycle (Class I, II and III)	Unpaved Trail	
Bicycle/Pedestrian Trail on Both Sides of I-5 at San Elijo Lagoon With Bridge*	EN#1	Encinitas	• Suspended N-S pedestrian bridge across San Elijo Lagoon • E-W paved sidewalk on the south side of Manchester Avenue on the north of the lagoon	Suspended N-S pedestrian bridge across San Elijo Lagoon	• Enhancement of the existing trails on both sides of freeway on the south side of the lagoon • 8' trail under bridge with handrail and retaining wall	• 2 HOV lanes & noise barriers Manchester to SR 78 • San Elijo Lagoon highway bridge replacement
Villa Cardiff Dr & MacKinnon Ave Bridge Enhancements*	EN#2B		• 12' wide bicycle-pedestrian trail on east side of I-5 along west side of Villa Cardiff Drive • 17' wide combined Class II bicycle and pedestrian trail on both sides of the MacKinnon Bridge		NA	• 2 HOV lanes & noise barriers Manchester to SR 78 • MacKinnon Avenue OC reconstruction
Hall Property Park Trail Connecting to Santa Fe Drive*	EN#3		NA	NA	8' wide trail between Santa Fe Drive traffic circle and Hall Property Park on west side of I-5	• 2 EL from Manchester to Palomar Airport Road • Santa Fe Drive UC widening with widening of both sidewalks to 10' and traffic circles on both sides of I-5 on Santa Fe Drive
Trail Connecting Santa Fe Drive to Requeza Street with Wetland Revegetation*	EN#4		NA	NA	12' wide trail between Santa Fe Drive and Requeza Street on the east side of I-5	2 EL from Manchester to Palomar Airport Road
Encinitas Boulevard Bicycle/Pedestrian Enhancements	EN#5A		New 10' sidewalk on both sides of undercrossing	NA	NA	• 2 HOV lanes & noise barriers Manchester to SR 78 • Encinitas Boulevard UC widening
Trail Connecting Requeza Street to Encinitas Boulevard*	EN#5B		NA	NA	12' wide trail between Requeza Street and Encinitas Blvd. on the east side of I-5	2 EL from Manchester to Palomar Airport Road
Union Street Pedestrian Overpass*	EN#6A		New 12' pedestrian-bicycle overcrossing with sidewalk connection to trail			2 EL from Manchester to Palomar Airport Road
Cottonwood Creek Park to Union Street Trail Connection with Wetland Revegetation*	EN#6B		NA	NA	8' wide trail from Cottonwood Creek Park to Union Street on the west side of I-5	2 EL from Manchester to Palomar Airport Road
I-5 NC Bike Trail in the City of Encinitas (in I-5 ROW)	EN#7		Varying pedestrian and bicycle network (Class I, II and III) improvements along I-5 NC		NA	2 HOV lanes & noise barriers Manchester to SR 78 between Manchester Ave and the city border

* Source: I-5 North Coast Community Enhancement Plan (January, 2008) refined by Caltrans input
EL = Express Lane

TABLE 2: PWP/TREP PEDESTRIAN, BICYCLE AND TRAIL COMMUNITY ENHANCEMENT PROJECTS (CONTINUED)

Enhancement Project	Project No.	City	TYPE OF IMPROVEMENT			Coordinated with PWP Project
			Pedestrian (Paved Sidewalk)	Bicycle (Class I, II and III)	Unpaved Trail	
Bicycle/Pedestrian Trail & Bridge on West Side of Batiquitos Lagoon	CB#1A	Carlsbad	NA	NA	Decomposed granite 12' wide trail connecting east to west under I-5 and to existing trails, including a bridge crossing under I-5 connecting north and south sides of the lagoon	• 2 EL from Manchester to Palomar Airport Road • Batiquitos Lagoon Bridge replacement
Park and Ride Enhancement at La Costa Avenue*	CB#1B		NA	NA	Enhanced Park and Ride will serve as trail head	2 EL from Manchester to Palomar Airport Road
Trail on Northeast Side of I-5 at Batiquitos Lagoon*	CB#2		NA	NA	Trail connection to existing trail to hanging bridge	• 2 EL from Manchester to Palomar Airport Road • Batiquitos Lagoon Bridge replacement
Bicycle/Pedestrian Trail & Bridge on East Side of I-5 at Agua Hedionda Lagoon*	CB#3		NA	NA	• Trail under I-5 on south side of Lagoon, trail bridge along the east side of I-5 • 12' wide trail connecting to meet existing trail south of the lagoon	• 2 EL from Palomar Airport Rd to SR 78 • Agua Hedionda Bridge replacement
I-5 NC Bike Trail in the City of Carlsbad (in I-5 ROW)	CB#4		Varying pedestrian and bicycle network (Class I, II and III) improvements along I-5 NC		NA	2 EL from Palomar Airport Rd to SR 78 within the city borders

* Source: I-5 North Coast Community Enhancement Plan (January, 2008) refined by Caltrans input
EL = Express Lane

TABLE 2: PWP/TREP PEDESTRIAN, BICYCLE AND TRAIL COMMUNITY ENHANCEMENT PROJECTS (CONTINUED)

Enhancement Project	Project No.	City	TYPE OF IMPROVEMENT			Coordinated with PWP Project
			Pedestrian (Paved Sidewalk)	Bicycle (Class I, II and III)	Unpaved Trail	
Pocket Park and Pedestrian Path at California Street*	OC#1	Oceanside	Walkway connecting Moreno Way with California Street, enhanced crossings on Soto Street intersections with California and Valencia Streets	NA	NA	• 4 EL from SR 78 to Harbor Dr • California Street OC replacement with 17' Sidewalks on both sides
Oceanside Boulevard Pedestrian Streetscape Enhancement*	OC#2		10' sidewalk on both sides	NA	NA	• 4 EL from SR 78 to Harbor Dr • Oceanside Boulevard UC widening
Division Street Bicycle/Pedestrian Enhancements*	OC#3		• Widen sidewalks on both sides to 17' • New sidewalks on Brooks Street	NA	NA	• 4 EL from SR 78 to Harbor Dr • Brooks/Division Street OC replacement
Enhanced Pedestrian Overpass Connection on Mission Avenue*	OC#4		• Widen WB sidewalk to 12' • Widen EB sidewalk 17'	NA	NA	• 4 EL from SR 78 to Harbor Dr • Mission Avenue OC replacement
Bush Street Bicycle/Pedestrian Enhancements & Community Gardens*	OC#5		• Widen WB sidewalk to 10' • Widen EB sidewalk 17' on Overcrossing • New sidewalk along Witzel Street and Civic Center Drive/Bush Street • Wider sidewalks on Buena Street and Santa Barbara Street	NA	Paved trail from the east side of the bridge along the on-ramp to Buena Street	• 4 EL from SR 78 to Harbor Dr, Bush Street OC replacement • Mission Avenue OC ramp improvements
SR76 Underpass: New Parking & Trailhead*	OC#7		• Realignment and widening of the existing pedestrian-bicycle trail • Bicycle staging area and trailhead		NA	4 EL from SR 78 to Harbor Dr, San Luis Rey River Trail widening, SR-76 UC widening
Pedestrian Underpass Improvements North of San Luis Rey River*	OC#8		Widened sidewalk of underpass under I-5 with stairs and ramp connections that meet American with Disabilities Act requirements, optional sidewalk between San Luis Rey Drive and Monterey Drive	NA	Optional accessible ramp and trail from undercrossing to trail along north shore of river	4 EL from SR 78 to Harbor Dr
Harbor Drive/Camp Pendleton Bicycle/Pedestrian Enhancements	OC#10		Widen EB sidewalk to 8'	New Class II bike lanes	NA	4 EL from SR 78 to Harbor Dr, Harbor Drive Undercrossing widening
I-5 NC Bike Trail in the City of Oceanside (in I-5 ROW)**	OC#11		Varying pedestrian and bicycle network (Class I, II and III) improvements along I-5 NC		NA	2 HOV lanes & noise barriers Manchester to SR 78, between Manchester Ave and the city border

* Source: I-5 North Coast Community Enhancement Plan (January, 2008) refined by Caltrans input
** I-5 NC Bike Trail in the City of Oceanside will be on the same alignment as the Coastal Rail Trail (outside of I-5 ROW)
EL = Express Lane

TABLE 3: PLANNED PEDESTRIAN AND BICYCLE NETWORK IMPROVEMENTS ACROSS LOSSAN CORRIDOR

Existing Local Street Crossings	Existing Crossing Type	Jurisdiction	LOSSAN Project Area	Current Pedestrian Infrastructure	Planned Ped Infrastructure as Part of Rail Project	Current Bicycle Infrastructure	Planned Bike Improvement as Part of Rail Project
Sorrento Valley Blvd	At-Grade Double track	San Diego	No future project planned	Sidewalk on both sides	NA	Class II bike lanes on both sides	NA
Del Mar Scenic Pkwy	UC Single Track		Del Mar Tunnel Analysis	Access road to a parking lot sidewalk on south side only	TBD. Dependent upon tunnel alternatives analysis	No bike lanes	TBD. Dependent upon tunnel alternatives analysis
N. Torrey Pines Road / County Hwy S21	OC Single Track		Del Mar Tunnel Analysis	Sidewalk on East side only	TBD. Dependent upon tunnel alternatives analysis	Class II bike lanes on both sides	NA
Coast Blvd	At-Grade Single Track	Del Mar	Del Mar Tunnel Analysis	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Camino Del Mar (County Hwy S21)	OC Double Track		Del Mar Tunnel Analysis	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Via De La Valle	OC Single Track	Solana Beach	No future project planned	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Dahlia Dr to Rose St	Ped/Bike OC Double Track		No future project planned	Pedestrian-bicycle only OC	NA	Pedestrian-bicycle only OC	NA
Lomas Santa Fe Dr	OC Double Track		No future project planned	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Cliff St	Ped/Bike OC Double Track		No future project planned	Pedestrian-bicycle only OC	NA	Pedestrian-bicycle only OC	NA
Chesterfield Dr	At-Grade Single Track	Encinitas	Cardiff to Craven	• Sidewalk on both sides • Signaled Grade Crossing	NA	No bike lanes Class II network parallels track does not cross	TBD. Could be opportunity
D St	At-Grade Single Track		Moonlight to Swami	• Sidewalk on both sides • Signaled Grade Crossing	NA	No bike lanes	TBD. No current Class II network; future network is Class III
E St	At-Grade Single Track		Moonlight to Swami	• Sidewalk on both sides • Signaled Grade Crossing	NA	No bike lanes	TBD. No current Class II network; not on future local network
Encinitas Blvd	UC Single Track		Moonlight to Swami	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Leucadia Blvd	At-Grade Single Track		Ponto to Moonlight	• Signaled Grade Crossing • Low-quality sidewalk on the north side only	Potential Grade Separation. If not grade-separated then could be opportunity for sidewalk enhancement	Narrow Class II bike lane on north side	Potential Grade Separation. If not grade-separated then could be opportunity for Class II
La Costa Ave	OC Single Track		Ponto to Moonlight	Sidewalk only on south side	TBD. Could be opportunity for sidewalk enhancement	Class II bike lanes	NA
Avenida Encinas	OC Double Track	Carlsbad	Ponto to Moonlight	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Poinsettia Lane	OC Double Track		Ponto to Moonlight	Sidewalks on both sides	NA	Class II bike lanes on both sides	NA
Palomar Airport Rd	OC Double Track		No future project planned	No sidewalks	NA	No bike lanes	NA
Cannon Rd	At-Grade Double Track		No future project planned	• Sidewalks on both sides • Signaled Grade Crossing	NA	Class II bike lanes on both sides Signaled Grade Crossing	NA
Tamarack Ave	At-Grade Double Track		No future project planned	• Sidewalks on both sides • Signaled Grade Crossing	NA	Class II bike lanes on both sides Signaled Grade Crossing	NA
Carlsbad Village Dr	At-Grade Single track		Carlsbad Village Double Track	• Sidewalks on both sides • Signaled Grade Crossing	NA	No bike lanes	TBD. Future Network is Class III
Grand Ave	At-Grade Single track		Carlsbad Village Double Track	• Sidewalks on both sides • Signaled Grade Crossing	NA	No bike lanes	TBD. Future Network is Class III
Carlsbad Blvd	OC Single Track		Carlsbad Village Double Track	Sidewalks on south side only	TBD. Could be opportunity for sidewalk enhancement	Class II bike lanes on both sides	NA

TBD - To Be Determined at Project Level
NA - Not Applicable
Potential opportunities in green

TABLE 3: PLANNED PEDESTRIAN AND BICYCLE NETWORK IMPROVEMENTS ACROSS LOSSAN CORRIDOR (CONTINUED)

Existing Local Street Crossings	Existing Crossing Type	Jurisdiction	LOSSAN Project Area	Current Pedestrian Infrastructure	Planned Ped Infrastructure as Part of Rail Project	Current Bicycle Infrastructure	Planned Bike Improvement as Part of Rail Project
Cassidy Street	At-Grade Double track	Oceanside	No future project planned	Sidewalk on south side only	NA	No bike lanes	NA
Oceanside Blvd	At-Grade Four tracks		No future project planned	Sidewalks on both sides	NA	No bike lanes	NA
Wisconsin Ave	At-Grade Four tracks		No future project planned	Sidewalks on both sides	NA	No bike lanes	NA
Mission Ave	At-Grade Double track		No future project planned	Sidewalks on both sides	NA	No bike lanes	NA
Pier View Way	UC Double track		No future project planned	Pedestrian/bicycle only	NA	Pedestrian/bicycle only	NA
Surf Rider Way	At-Grade Single track		Eastbrook to Shell	Sidewalks on both sides	NA	No bike lanes	NA
San Luis Rey River Trail (Class I)	UC Single track		Eastbrook to Shell	• Paved pedestrian-bicycle shared trail • Grade Separation	Relocate Path	• Class I bike trail • Grade Separation	Relocate Bike Path
Harbor Dr / Camp Pendleton UC / Vandegrift Blvd	OC Double track		No future project planned	Sidewalk on south side only	NA	No bike lanes	NA

NA - Not Applicable

TABLE 3: PLANNED PEDESTRIAN AND BICYCLE NETWORK IMPROVEMENTS ACROSS LOSSAN CORRIDOR (CONTINUED)

New Crossings	New Crossing Type	Jurisdiction	LOSSAN Project Area	Current Pedestrian Infrastructure	Planned Ped Infrastructure as Part of Rail Project	Current Bicycle Infrastructure	Planned Bike Improvement as part of Rail Project
Hillcrest Dr	Ped/Bike UC Single track	Encinitas	Ponto to Moonlight	No crossing	New pedestrian-bicycle only UC	No crossing	New pedestrian-bicycle only UC
El Portal St	Ped/Bike UC Single track		Ponto to Moonlight	No crossing	New pedestrian-bicycle only UC	No crossing	New pedestrian-bicycle only UC
Santa Fe Dr	Ped/Bike UC Double track		No future track project planned	No crossing	New pedestrian-bicycle only UC	No crossing	New pedestrian-bicycle only UC
Montgomery Ave	Ped/Bike UC Double track		No future track project planned	No crossing	New pedestrian-bicycle only UC	No crossing	New pedestrian-bicycle only UC
Poinsettia Station	Ped/Bike UC Double track	Carlsbad	Ponto to Moonlight	At-grade crossing	New pedestrian-bicycle only OC	No crossing	New pedestrian-bicycle only UC
Coast to Crest Trail at San Dieguito Lagoon	Pedestrian trail UC	Del Mar	San Dieguito Lagoon Bridge Replacement	No crossing	New pedestrian-bicycle only UC	No crossing	New pedestrian-bicycle only UC

TABLE 4: ADDITIONAL OPPORTUNITIES FOR BICYCLE IMPROVEMENTS ACROSS I-5 (CLASS III CROSSING LOCATIONS)

I-5 Overcrossing Bridges	City	Included in Regional Bicycle Network	Identified as Barrier on Regional Barrier Map	Identified in Existing Local Bicycle Network	Existing Class II Network for Connection	Local Bicycle Plan Designation	PWP Project	PWP Project Opportunity
Carmel Valley Road/SR 56	San Diego	Yes	Yes	Yes	No	TBD	Maintain existing Class III	No
Birmingham Dr OC	Encinitas	No	Yes	No	No	Future Class III	Maintain existing Class III	No
Requeza St OC		No	No	No	No	Future Class III	Maintain existing Class III	No
Chinquapin Ave OC	Carlsbad	No	No	Class III	No	Remain Class III	Maintain existing Class III	No
Las Flores Dr OC		No	Yes	No	No	Future Class III	Maintain existing Class III	No
Cassidy St OC	Oceanside	No	No	No	No	No bicycle facility recommended	Maintain existing Class III	No
Brooks St OC		No	No	No	No	No bicycle facility recommended	Maintain existing Class III	No
Fourth St / Bush St OC		No	No	No	No	No bicycle facility recommended	Maintain existing Class III	No
Neptune Way / 8th St OC		No	No	No	No	No bicycle facility recommended	Maintain existing Class III	No

Planned Improvements and Opportunities
- PWP/TREP Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement
- Non-PWP/TREP Improvement (Permitted Separately)

Existing Pedestrian and Bicycle Facilities
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

SD# Community Enhancement (Table 2)

Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 1A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (North San Diego)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities
- PWP/TREP Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement
- Non-PWP/TREP Improvement (Permitted Separately)

Existing Pedestrian and Bicycle Facilities
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- SD# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 1B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Sorrento Valley Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- PWP/TREP Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement
- Non-PWP/TREP Improvement (Permitted Separately)

Existing Pedestrian and Bicycle Facilities

- City of Encinitas Recreational Trail
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- Coast to Crest Trail
- California Coastal Trail

Existing Parks and Preserves

- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

SB# Community Enhancement (Table 2)

Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 2A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (N. San Diego, Del Mar, Solana Beach, and S. Encinitas)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities

- City of Encinitas Recreational Trails
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves

- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- SB# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 2B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Solana Beach Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities
- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement
- Non-PWP/TREP Improvement (Permitted Separately)

Existing Pedestrian and Bicycle Facilities
- City of Encinitas Recreational Trail
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

EN# Community Enhancement (Table 2)

Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Coastal Rail Trail (SANDAG 2012; City of Encinitas 2012) Local Bike Route, Regional Bike Route, California Coastal Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 3A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Encinitas)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities
- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement
- Non-PWP/TREP Improvement (Permitted Separately)

Existing Pedestrian and Bicycle Facilities
- City of Encinitas Recreational Trail
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

EN# Community Enhancement (Table 2)

Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Coastal Rail Trail (SANDAG 2012; City of Encinitas 2012) Local Bike Route, Regional Bike Route, California Coastal Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jursidictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 3B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Encinitas Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities
- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail (Constructed or In Progress)
- Coastal Rail Trail (Planned)
- California Coastal Trail

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- CB# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jursidictions, SanGIS
Imagery: Bing Maps (2012)

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FIGURE 4A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (North Encinitas and South Carlsbad)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities
- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities
- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries
- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- CB# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jursidictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 4B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Carlsbad Poinsettia Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities

- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail (Constructed or In Progress)
- Coastal Rail Trail (Planned)
- California Coastal Trail

Existing Parks and Preserves

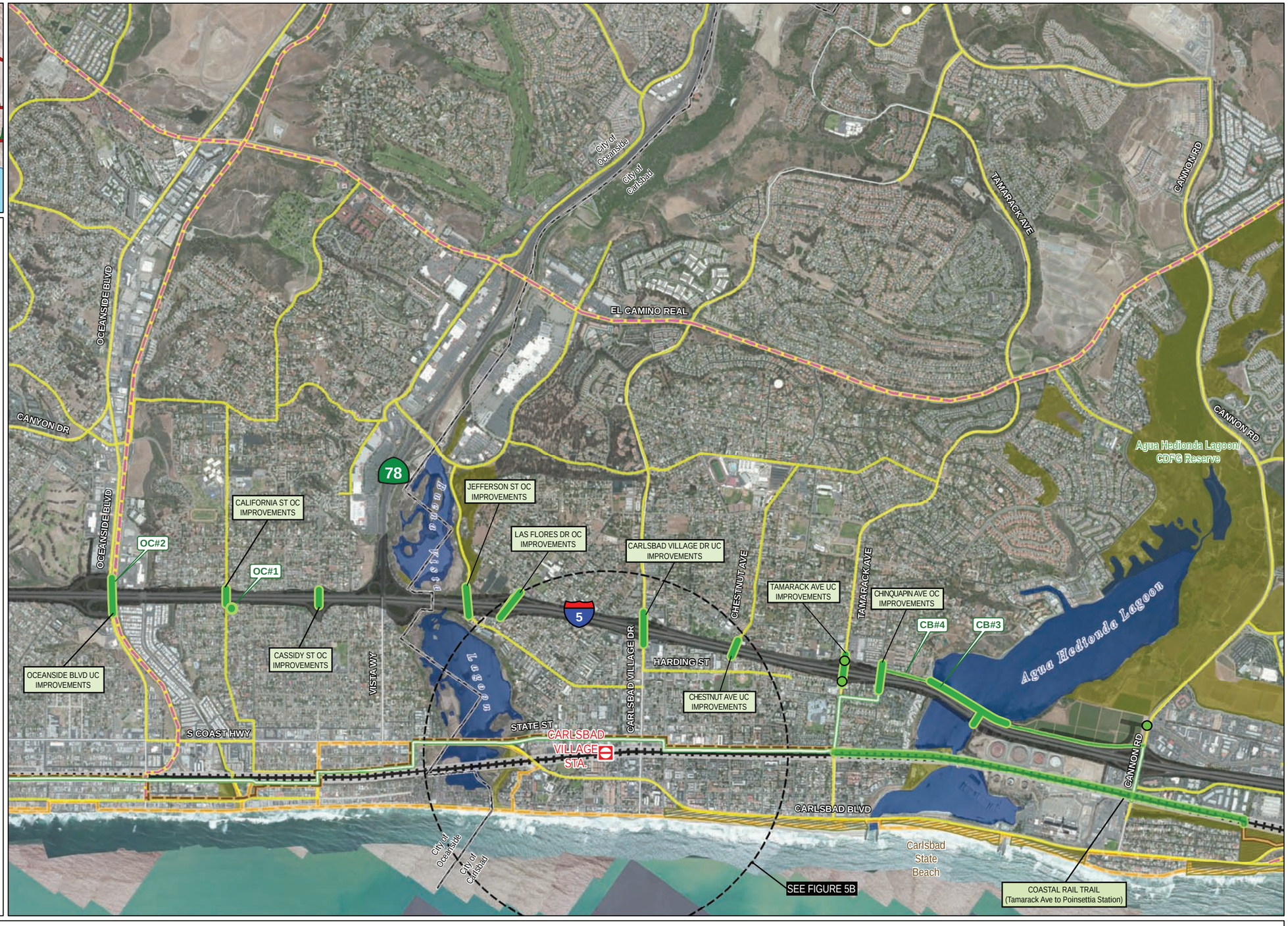
- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- CB# Community Enhancement (Table 2)
- Other Bike/Ped Improvement



SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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FIGURE 5A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (North Carlsbad and South Oceanside)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities

- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves

- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- CB# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS
Imagery: Bing Maps (2012)

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NORTH

FIGURE 5B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Carlsbad Village Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities

- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail

Existing Parks and Preserves

- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- City Boundary
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- OC# — Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS Imagery: Bing Maps (2012)

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NORTH

FIGURE 6A

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Oceanside)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program

Planned Improvements and Opportunities

- Planned Pedestrian and Bicycle Improvement
- I-5 North Coast Bike Trail (I-5 ROW)
- I-5 North Coast Bike Trail (Outside I-5 ROW)
- Traffic Signal/Intersection Improvement

Existing Pedestrian and Bicycle Facilities

- Local Bicycle Route
- Regional Bicycle Route
- Coastal Rail Trail
- California Coastal Trail
- Sidewalk

Existing Parks and Preserves

- State Beach/Park/Preserve
- Open Space & Parks

Project Areas and Boundaries

- I-5 Project Area
- LOSSAN Project Area
- LOSSAN Rail Station
- Pedestrian Access Study Area (0.75 miles)

OC = Overcrossing
UC = Undercrossing

- OC# Community Enhancement (Table 2)
- Other Bike/Ped Improvement

SOURCE: Planned Improvements (Caltrans 2012); Local Bike Route, Regional Bike Route, California Coastal Trail, Coastal Rail Trail, Existing Parks and Preserves (SANDAG 2012); California Coastal Commission, Local Jurisdictions, SanGIS Imagery: Bing Maps (2012)

0 250 500 750 1,000 Feet

NORTH

FIGURE 6B

Safe Access to Transit and Coastal Resources: Pedestrian and Bicycle Improvements (Oceanside Station Area)

North Coast Corridor Public Works Plan/Transportation and Resource Enhancement Program